

In The Claims:

The pending claims are listed as follows:

1. (Currently Amended) A fabric coating composition with latent heat effects, the composition comprising:

1 part of a polymer binder;

a hydrophilic microcapsule aqueous solution containing hydrophilic microcapsules with a shell made of a polymer polymerized from waterborne polyurethane and lipophilic monomer, wherein the hydrophilic microcapsule aqueous solution includes 1 to 40 parts of hydrophilic microcapsules;

a thickener, wherein a weight of the thickener is between about 2% and 12% of a weight of the hydrophilic microcapsules; and
water, wherein a weight percentage of water is between about 30% and 70% of a total weight of the composition.

2. (Original) The composition of claim 1, further comprising an antifoam agent having a weight percentage of 0%-1%.

3. (Currently Amended) The composition of claim 1, wherein the

~~hydrophilic microcapsules have shells made of waterborne polyurethane is selected from following group consisting of waterborne polyurethane containing 2,2-bis(hydroxymethyl) propionic, waterborne polyurethane containing 2,2-bis(hydroxymethyl) propionic triethylamine salt, waterborne urethane containing sulfite diethylamine salt and mixtures thereof.~~

4. (Original) The composition of claim 1, wherein the hydrophilic microcapsules enclose a phase-change material and the phase-change material is selected from the following group consisting of carboxylic ester, alkyl or aromatic hydrocarbons, saturated or unsaturated C6-C30 fatty acids, aliphatic alcohols, C6-C30 aliphatic amines, esters, natural or synthetic wax, halogenated hydrocarbons and mixtures thereof.

5. (Original) The composition of claim 1, wherein the thickener is selected from the following group consisting of poly acrylic acid, cellulose ester and its derivatives, polyethylene alcohol, other thickening agents and mixtures thereof.

6. (Original) The composition of claim 2, wherein the antifoam agent is

selected from the following group consisting of fatty acid salts, sulfonates, waterborne dispersible silicon oil or waterborne dispersible silicon powder.

7. (Original) The composition of claim 1, wherein a size of the microcapsules is between about 1 micron and 10 microns.

8. (Currently Amended) A method for manufacturing a fabric coating composition with latent heat effects, comprising the following steps:

providing a solution comprising a hydrophilic microcapsule solution containing hydrophilic microcapsules with a shell made of a polymer polymerized from waterborne polyurethane and lipophilic monomer, a polymeric binder and a thickener, wherein the hydrophilic microcapsule solution comprises a phase-change material enclosed within the microcapsules;

stirring the solution until a viscosity of the solution is larger than 6000 cps; and

allowing the solution to set for a duration.

9. (Original) The method of claim 8, wherein the duration is between

about 10 minutes and 6 hours.

10. (Original) The method of claim 8, further comprising adding an antifoam agent.

11. (Original) The method of claim 8, wherein a percentage of the hydrophilic microcapsules is no less than 25%.

12. (Newly Added) The method of claim 8, wherein the waterborne polyurethane is selected from following group consisting of waterborne polyurethane containing 2,2-bis(hydroxymethyl) propionic, waterborne polyurethane containing 2,2-bis(hydroxymethyl) propionic triethylamine salt, waterborne urethane containing sulfite diethylamine salt and mixtures thereof.

13. (Newly Added) The method of claim 8, wherein the hydrophilic microcapsules enclose a phase-change material and the phase-change material is selected from the following group consisting of carboxylic ester, alkyl or aromatic hydrocarbons, saturated or unsaturated C6-C30 fatty acids, aliphatic alcohols, C6-C30 aliphatic amines, esters, natural or synthetic wax, halogenated hydrocarbons and mixtures thereof.

14. (Newly Added) The method of claim 8, wherein the lipophilic monomer is isocyanate salt.

15. (Newly Added) The method of claim 8, wherein the thickener is selected from the following group consisting of polyacrylic acid, cellulose ester and its derivatives, polyethylene alcohol, other thickening agents and mixtures thereof.

16. (Newly Added) The method of claim 10, wherein the antifoam agent is selected from the following group consisting of fatty acid salts, sulfonates, waterborne dispersible silicon oil or waterborne dispersible silicon powder.

17. (Newly Added) The method of claim 8, wherein a size of the microcapsules is between about 1 micron and 10 microns.

18. (Newly Added) The composition of claim 1, wherein the lipophilic monomer is isocyanate salt.